Author Index of Volume 216

Abe, M., 155
Achutharaman, V. S., 14
Albrecht, M., 199
Alexopoulos, N. G., 189
Allen, G. C., 37
Ando, H., 123
Angus, J. C., 126
Armstrong, N. R., 90
Awano, H., 283

Bauser, E., 199
Beauchamp, K. M., 14
Berjoan, R., 244
Bonetti, E., 211
Bozovic, I., 8
Braun, D., 96
Braunstein, G., 1
Burns, S. J., 181

Capasso, F., 59
Carciello, N., 249
Chandrasekhar, N., 14
Chang, H. L. M., 4
Chau, L.-K, 90
Chen, G., 279
Cheng, H. C., 219
Ciliberto, E., 37
Coleman, J. J., 68
Collins, G. E., 90
Cros, B., 244
Czeremuszkin, G., 203

Daughton, J. M., 162
DeGroot, D. C., 41, 45
Diehl, D., 90
Douskey, M., 90
Durand, J., 244

Eckstein, J. N. 8
England, C., 90

Falicov, L. M., 169
Fragalá, I. L., 37
Furuno, T., 99

Gangadhatan, R., 28
Gao, Y., 4
Gat, E., 244
Geis, M. W., 134
Goldman, A. M., 14

Hansson, P. O., 199
Hasuo, S., 21
Hatalis, M. K., 137
Hatwar, T. K., 181
Heeger, A. J., 96
Hikosaka, M., 283
Hogan, T., 45
Hsieh, P. Y., 28
Hues, S. M., 259

Ishii, H., 239
Itoh, T., 155

Jacobs, S. D., 181
Janča, J., 235
Jiang, X., 279
Johnson, B. R., 14
Juang, M. H., 219

Kanicki, J., 137
Kannewurf, C. R., 41, 45
Kappes, M. M., 142
Kawai, T., 33
Kim, K.-H., 99
Kitayama, M., 123
Klausmeier-Brown, M., 8
Kobayashi, K., 99
Kobayashi, Y., 99
Koma, A., 72
Kryder, M. H., 174
Kuech, T. F., 77
Kung, J.-H. 137
Kurahashi, A., 123

Lam, D. J., 4
Lambropoulos, J. C., 181
Lareau, R. T., 259
Lee, H. G., 230
Lee, P. A., 90
Li, J. P., 149
Liu, J. R., 28
Liu, S.-Z., 142
Losch, W., 225

Makous, J. L., 259
Malandrino, G., 37, 45
Marks, T. J., 37, 41, 45
Mazzone, A. M., 145
Miura, M., 249
Mori, S., 123

Nagamune, T., 99
Nebesny, K. W., 90
Neumayer, D. A., 41, 45
Nishiguchi, K., 239

Ohigashi, H., 283
Onda, T., 123
Otomo, J., 99

Paolizzi, M., 211
Parkinson, B. A., 90
Paz Pujalt, G. R., 1
Ralls, K. S., 8
Richeson, D. S., 37, 41, 45
Ristova, M., 274
Rubtsov, N. M., 268
Rubstov, V. I., 268

Sasabe, H., 99
Sauls, J. A., 49
Schindler, J. L., 41, 45
Schulz, D. L., 37, 41, 45
Shaw-Klein, L. J., 181
Shul'ga, Yu. M., 268
Sodomka, L., 235
Spalding, G. C., 14
Steckl, A. J., 149
Strunk, H. P., 199
Sugama, T., 249
Sun, Y. S., 49
Suntola, T., 84
Suzuki, A., 283

Takahashi, K., 239
Takahashi, Y., 239
Tamaura, Y., 155
Tao, Y. K., 28
Tomioka, H., 99
Toshev, P., 274

Urabe, Y., 99

Venkatesan, T., 52
Viguier, M., 244
Virshup, G., 8

Wegner, G., 105
Wei, K. C., 28
Werner, J. H., 199
Williams, D. J., 117
Wolfe, R., 184
Wróbel, A. M., 203

Xie, E., 279

Yaguchi, A., 123
Yang, B., 279
Yang H.-Y., 189
Yang, Y., 279
Yip, S. K., 49
Younes, C. M., 37

Zakhar'in, V. I., 268
Zhang, F., 279
Zhang, N., 279
Zhang, T. J., 4

Subject Index of Volume 216

Adsorption
  selective gas sorption of plasma-polymerized organosiloxane thin films, 235
Alloys
  magnetoresistive memory technology, 162
  thermal conductivity of amorphous rare earth-transition metal thin films for magneto-optic recording, 181
Aluminium
  fractal polyzirconosiloxane cluster coatings, 249
Aluminium oxide
  high-quality niobium Josephson junction for ultrafast computers, 21
Amorphous materials
  tensiometry and Auger electron spectroscopy studies of the surface of plasma-deposited silicon carbide coatings, 244
  thermal conductivity of amorphous rare earth-transition metal thin films for magneto-optic recording, 181
Annealing
  conventional furnace and rapid thermal annealing of cobalt films on Si(III), 219
Auger electron spectroscopy
  valence Auger analysis across the annealed interface between a deposited titanium film and sapphire, 239
  low-temperature silicon nitride: a promising dielectric in semiconductor technology, 268
  oxygen incorporation in Mo/Ni multilayers, 259
  surface and bulk analysis of metal-organic chemical vapor deposition-derived superconducting $Tl_2Ba_2Ca_2Cu_3O_x$ thin films by Auger electron spectroscopy, 37
  tensiometry and Auger electron spectroscopy studies of the surface of plasma-deposited silicon carbide coatings, 244

Band structure
  bandgap and interface engineering for advanced electronic and photonic devices, 59
  electroluminescence from light-emitting diodes fabricated from conducting polymers, 96
  strained-layer quantum well heterostructure lasers, 68
Biomaterials
  magnetic and biomagnetic films by ferrite plating in aqueous solution, 155

Carbon
  scanning tunneling microscopy characterization of C_{70} thin films, 142
Chemical vapour deposition
  atomic layer epitaxy, 84
  low-temperature silicon nitride: a promising dielectric in semiconductor technology, 268
  rapid thermal chemical vapor deposition growth of nanometer-thin SiC on silicon, 149
Clusters
  fractal polyzirconosiloxane cluster coatings, 249
  scanning tunneling microscopy characterization of C_{70} thin films, 142
Coatings
  fractal polyzirconosiloxane cluster coatings, 249
Conductivity
  magnetoresistive memory technology, 162
Corrosion
  fractal polyzirconosiloxane cluster coatings, 249
Crystallization
  single crystal $SrTiO_3$ produced by the method of metallo-organic decomposition (MOD), 1
  two-dimensional molecular packing of proteins, 99

Deposition processes
  epitaxial metal oxide films, a leading candidate for 21st Century thin film technology, 52
  magnetic and biomagnetic films by ferrite plating in aqueous solution, 155
  perspectives on metal-organic vapor phase epitaxy growth: chemistry, structures and systems, 77
  preparation of Ag_2S thin films by chemical deposition and examination of some of their physical properties, 274
  single crystal $SrTiO_3$ produced by the method of metallo-organic decomposition (MOD), 1
Depth profiling
  effect of UV irradiation of the film during plasma chemical vapour deposition, 203
  surface and bulk analysis of metal-organic chemical vapor deposition-derived superconducting $Tl_2Ba_2Ca_2Cu_3O_x$ thin films by Auger electron spectroscopy, 37
Diamond
  device application of diamonds, 134
  diamond and diamond-like films, 126
  electrical properties of boron-doped polycrystalline diamond films, 279
Dielectrics
  investigations of the quality of the polysilicon film–gate dielectric interface in polysilicon thin film transistors, 137

Electrical properties
  conventional furnace and rapid thermal annealing of cobalt films on Si(111), 219
  ultrathin films of polymers: architecture, characterization and properties, 105
Electrical properties and measurements
  electrical properties of boron-doped polycrystalline diamond films, 279
  polarization effects in thin solid films, sputtered on polyethyleneterephthalate substrates, near the percolation threshold, 211
  printed-circuit antennae on non-reciprocal magnetic thin films, 189
Electron microscopy
  conventional furnace and rapid thermal annealing of cobalt films on Si(111), 219
Electronic devices
  bandgap and interface engineering for advanced electronic and photonic devices, 59
  d. c. sputtering deposition of a-axis-on-c-axis double-layer Y–Ba–Cu–O films, 28
  device application of diamonds, 134
  electroluminescence from light-emitting diodes fabricated from conducting polymers, 96
  epitaxial metal oxide films, a leading candidate for 21st Century thin film technology, 52
  high-quality niobium Josephson junction for ultrafast computers, 21
  investigations of the quality of the polysilicon film–gate dielectric interface in polysilicon thin film transistors, 137

magnetic and biomagnetic films by ferrite plating in aqueous solution, 155
magnetic thin films for data storage, 174
magnetoresistive memory technology, 162
molecular dynamics simulation methods applied to ion beam mixing, 145,
printed-circuit antennae on non-reciprocal magnetic thin films, 189
Epitaxy
atomic layer epitaxy, 84
conventional furnace and rapid thermal annealing of cobalt films on Si(111), 219
dimensionality and critical sizes of GeSi on Si(100), 199
dye aggregates and organic superlattices formed by organic–inorganic molecular beam epitaxy, 90
heteroepitaxy of high-Tc superconducting Tl–Ba–Ca–Cu–O films on metal-coated substrates, 45
heteroepitaxy of TiO_2, VO_2 films and TiO_2/VO_2 multilayers grown on sapphire (1120) by metallo-organic chemical vapor deposition, 4
perspectives on metal–organic vapor phase epitaxy growth: chemistry, structures and systems, 77
single crystal $SrTiO_3$ produced by the method of metallo-organic decomposition (MOD), 1
van der Waals epitaxy—a new epitaxial growth method for a highly lattice-mismatched system, 72

Germanium
dimensionality and critical sizes of GeSi on Si(100), 199
Glow discharge
effect of UV irradiation of the film during plasma chemical vapour deposition, 203
Growth mechanism
model of low temperature silicon compound material growth kinetics, 225
atomically layered growth and properties of high temperature superconducting single-crystal films and superlattices, 8
rapid thermal chemical vapor deposition growth of nanometer-thin SiC on silicon, 149
Growth mechanisms
atomic layer and unit-cell layer growth superconducting thin films by laser molecular beam epitaxy, 33
dimensionality and critical sizes of GeSi on Si(100), 199

Hardness
characteristics of cyclic phosphazene and its applications for hard coatings, 123
Heterostructures
dimensionality and critical sizes of GeSi on Si(100), 199
molecular dynamics simulation methods applied to ion beam mixing, 145
perspectives on metal–organic vapor phase epitaxy growth: chemistry, structures and systems, 77
rapid thermal chemical vapor deposition growth of nanometer-thin SiC on silicon, 149
strained-layer quantum well heterostructure lasers, 68
van der Waals epitaxy—a new epitaxial growth method for a highly lattice-mismatched system, 72

Interfaces
valence Auger analysis across the annealed interface between a deposited titanium film and sapphire, 239
bandgap and interface engineering for advanced electronic and photonic devices, 59
perspectives on metal–organic vapor phase epitaxy growth: chemistry, structures and systems, 77

Iron oxide
magnetic and biomagnetic films by ferrite plating in aqueous solution, 155

Langmuir–Blodgett films
non-linear optical properties of organic materials, 117
structure and morphology of Langmuir–Blodgett films composed of a mixture of [tetrakis(cumylphenoxy)phthalocyanine]copper and octadecanol, 283
two-dimensional molecular packing of proteins, 99
Laser ablation
atomic layer and unit-cell layer growth of superconducting thin films by laser molecular beam epitaxy, 33

Magnetic properties
proximity effects of a thin film of unconventional superconductor in contact with a magnetic substrate, 49
Magnetic properties and measurements
magnetic thin films for data storage, 174
magnetoresistive memory technology, 162
surface, interface and thin film magnetism: an overview, 169
thin films for non-reciprocal magneto-optic devices, 184
Magnetic structures
magnetic and biomagnetic films by ferrite plating in aqueous solution, 155
magnetic thin films for data storage, 174
magnetoresistive memory technology, 162
printed-circuit antennae on non-reciprocal magnetic thin films, 189
surface, interface and thin film magnetism: an overview, 169
thermal conductivity of amorphous rare earth–transition metal thin films for magneto-optic recording, 181
Metallization
valence Auger analysis across the annelaed interface between a deposited titanium film and sapphire, 239
Molecular beam epitaxy
atomic layer and unit-cell layer growth of superconducting thin films by laser molecular beam epitaxy, 33
atomic layer epitaxy, 84
atomically layered growth and properties of high temperature superconducting single-crystal films and superlattices, 8
bandgap and interface engineering for advanced electronic and photonic devices, 59
fabrication of high-T_c superconductors using ozone-assisted molecular beam epitaxy, 14
Monolayers
two-dimensional molecular packing of proteins, 99
Multilayers
heteroepitaxy of TiO_2, VO_2 films and TiO_2/VO_2 multilayers grown on sapphire (1120) by metallo-organic chemical vapor deposition, 4
magnetic thin films for data storage, 174
magnetoresistive memory technology, 162
surface, interface and thin film magnetism: an overview, 169

Nanostructures
rapid thermal chemical vapor deposition growth of nanometer-thin SiC on silicon, 149
scanning tunneling microscopy characterization of C_{70} thin films, 142
Niobium
high-quality niobium Josephson junction for ultrafast computers, 21

Optical properties
electroluminescence from light-emitting diodes fabricated from conducting polymers, 96
non-linear optical properties of organic materials, 117
polarization effects in thin solid films, sputtered on polyethyleneterephthalate substrates, near the percolation threshold, 211
preparation of Ag_2S thin films by chemical deposition and examination of some of their physical properties, 274
strained-layer quantum well heterostructure lasers, 68
thin films for non-reciprocal magneto-optic devices, 184
Organic substances
non-linear optical properties of organic materials, 117
selective gas sorption of plasma-polymerized organosiloxane thin films, 235
structure and morphology of Langmuir–Blodgett films composed of a mixture of [tetrakis(cumylphenoxy)phthalocyanine]copper and octadecanol, 283
characteristics of cyclic phosphazene and its applications for hard coatings, 123
Organometallic vapour deposition
heteroepitaxy of TiO_2, VO_2 films and TiO_2/VO_2 multilayers grown on sapphire (1120) by metallo-organic chemical vapor deposition, 4
metal–organic chemical vapor deposition-derived lead- and bismuth-doped high-T_c superconducting Tl–Ba–Ca–Cu–O films, 41
perspectives on metal–organic vapor phase epitaxy growth: chemistry, structures and systems, 77
surface and bulk analysis of metal–organic chemical vapor deposition-derived superconducting $Tl_2Ba_2Ca_2Cu_3O_x$ thin films by Auger electron spectroscopy, 37
Oxidation
thermodynamic considerations in thermal oxidation of metal silicides, 230
Oxides
d.c. sputtering deposition of a-axis-on-c-axis double-layer Y–Ba–Cu–O films, 28
epitaxial metal oxide films, a leading candidate for 21st Century thin film technology, 52
fabrication of high-T_c superconductors using ozone-assisted molecular beam epitaxy, 14
heteroepitaxy of TiO_2, VO_2 films and TiO_2/VO_2 multilayers grown on sapphire (1120) by metallo-organic chemical vapor deposition, 4
metal–organic chemical vapor deposition-derived lead- and bismuth-doped high-T_c superconducting Tl–Ba–Ca–Cu–O films, 41
single crystal $SrTiO_3$ produced by the method of metallo-organic decomposition (MOD), 1
Oxygen
oxygen incorporation in Mo/Ni multilayers, 259
Ozone
fabrication of high-T_c superconductors using ozone-assisted molecular beam epitaxy, 14

Photoconductivity
preparation of Ag_2S thin films by chemical deposition and examination of some of their physical properties, 274
Physical vapour deposition
d.c. sputtering deposition of a-axis-on-c-axis double-layer Y–Ba–Cu–O films, 28
Plasma deposition
effect of UV irradiation of the film during plasma chemical vapour deposition, 203
selective gas sorption of plasma-polymerized organosiloxane thin films, 235
Plasmons
ultrathin films of polymers: architecture, characterization and properties, 105
Polymers
electroluminescence from light-emitting diodes fabricated from conducting polymers, 96
ultrathin films of polymers: architecture, characterization and properties, 105

Quantum effects
proximity effects of a thin film of unconventional superconductor in contact with a magnetic substrate, 49

Reaction kinetics
model of low temperature silicon compound material growth kinetics, 225
valence Auger analysis across the annealed interface between a deposited titanium film and sapphire, 239

Scanning electron microscopy
two-dimensional molecular packing of proteins, 99
Scanning tunneling microscopy
scanning tunneling microscopy characterization of C_{70} thin films, 142
Semiconductors
thermodynamic considerations in thermal oxidation of metal silicides, 230
Silicides
model of low temperature silicon compound material growth kinetics, 225
thermodynamic considerations in thermal oxidation of metal silicides, 230
Silicon
dimensionality and critical sizes of GeSi on Si(100), 199
investigations on the quality of the polysilicon film-gate dielectric interface in polysilicon thin film transistors, 137
Silicon carbide
rapid thermal chemical vapor deposition growth of nanometer-thin SiC on silicon, 149
tensiometry and Auger electron spectroscopy studies of the surface of plasma-deposited silicon carbide coatings, 244
Silicon nitride
low-temperature silicon nitride: a promising dielectric in semiconductor technology, 268
Silver
polarization effects in thin solid films, sputtered on polyethyleneterephthalate substrates, near the percolation threshold, 211
Sputtering
polarization effects in thin solid films, sputtered on polyethyleneterephthalate substrates, near the percolation threshold, 211
thermal conductivity of amorphous rare earth–transition metal thin films for magneto-optic recording, 181
Stress
effect of UV irradiation of the film during plasma chemical vapour depositon, 203
Strontium
single crystal $SrTiO_3$ produced by the method of metallo-organic decomposition (MOD), 1
Structural properties
structure and morphology of Langmuir–Blodgett films composed of a mixture of [tetrakis(cumylphenoxy)phthalocyanine]copper and octadecanol, 283

ultrathin films of polymers: architecture, characterization and properties, 105
Superconductivity
atomic layer and unit-cell layer growth of superconducting thin films by laser molecular beam epitaxy, 33
atomically layered growth and properties of high temperature superconducting single-crystal films and superlattices, 8
d.c. sputtering deposition of a-axis-on-c-axis double-layer Y–Ba–Cu–O films, 28
epitaxial metal oxide films, a leading candidate for 21st Century thin film technology, 52
fabrication of high-T_c superconductors using ozone-assisted molecular beam epitaxy, 14
heteroepitaxy of high-T_c superconducting Tl–Ba–Ca–Cu–O films on metal-coated substrates, 45
high-quality niobium Josephson junction for ultrafast computers, 21
metal–organic chemical vapor deposition-derived lead- and bismuth-doped high-T_c superconducting Tl–Ba–Ca–Cu–O films, 41
proximity effects of a thin film of unconventional superconductor in contact with a magnetic substrate, 49
surface and bulk analysis of metal–organic chemical vapor deposition-derived superconducting $Tl_2Ba_2Ca_2Cu_3O_x$ thin films by Auger electron spectroscopy, 37
Superlattices
atomically layered growth and properties of high temperature superconducting single-crystal films and superlattices, 8
dye aggregates and organic superlattices formed by organic–inorganic molecular beam epitaxy, 90
oxygen incorporation in Mo/Ni multilayers, 259
surface, interface and thin film magnetism: an overview, 169
Surface and interface states
surface, interface and thin film magnetism: an overview, 169
Surface structure
model of low temperature silicon compound material growth kinetics, 225

Thallium
heteroepitaxy of high-T_c superconducting Tl–Ba–Ca–Cu–O films on metal-coated substrates, 45
metal–organic chemical vapor deposition-derived lead- and bismuth-doped high-T_c superconducting Tl–Ba–Ca–Cu–O films, 41
Titanium
single crystal $SrTiO_3$ produced by the method of metallo-organic decomposition (MOD), 1
Transmission electron microscopy
structure and morphology of Langmuir–Blodgett films composed of a mixture of [tetrakis(cumylphenoxy)phthalocyanine]copper and octadecanol, 283

X-ray diffraction
heteroepitaxy of high-T_c superconducting Tl–Ba–Ca–Cu–O films on metal-coated substrates, 45
metal–organic chemical vapor deposition-derived lead- and bismuth-doped high-T_c superconducting Tl–Ba–Ca–Cu–O films, 41
oxygen incorporation in Mo/Ni multilayers, 259
preparation of Ag_2S thin films by chemical deposition and examination of some of their physical properties, 274
X-ray photoelectron spectroscopy
low-temperature silicon nitride: a promising dielectric in semiconductor technology, 268